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QUENCHED AND TEMPERED JOINT CAGE

TECHNICAL FIELD

[0001] The invention relates to a cage having a plurality of cutouts for receiving rolling bodies of a joint. A process for producing a cage of this type is also proposed.

[0002] The invention relates in particular to cages for constant-velocity rotary ball joints, as are used for example in the automotive industry. These joints have a joint outer part and a joint inner part, in which a plurality of substantially longitudinally running ball races are provided. The balls are fitted between the joint outer part and the joint inner part for the purpose of torque transmission, the positioning of the balls being ensured by a cage arranged between the joint outer part and the joint inner part. The cage has a plurality of cage windows for the balls, so that their movement in the axial direction is restricted.

[0003] With regard to the various types of joint, the invention relates in particular to cages for the following joints:

[0004] Rzeppa joints, in which the direct control of the balls onto the angle-bisector plane is effected by meridionally running ball races with longitudinally offset centre points of the races of the joint inner part and joint outer part.

[0005] Undercut-free UF joints, which follow substantially the same principle, the ball races are designed to be undercut-free as seen in the axial direction.

[0006] What are known as DO joints, in which spherical guide surfaces with axially offset centres of curvature on the inner and outer sides are provided on the cage, so that in the event of joint inclination, direct control of the cage and therefore indirect control of the balls onto the angle-bisector plane takes place. Joints of this type are designed with